Borough of Barnsley.

REPORT

ON THE

SANITARY CONDITION of BARNSLEY

AND THE

WORK OF THE ISOLATION HOSPITAL

IN 1913,

SUBMITTED TO THE TOWN COUNCIL

BY

F. J. SADLER, M.A., D.M., D.P.H.,

OXON.,

MEDICAL OFFICER OF HEALTH,

JUNE, 1914.

BARNSLEY:
J. E. VERO LTD., PRINTERS, MARKET STREET.
1914.

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BOROUGH OF BARNSLEY.

REPORT

OF THE

Medical Officer of Health

FOR THE YEAR 1913.

To the Sanitary Committee of the Town Council.

GENTLEMEN,

Meteorological

In the matter of weather, 1913 proved to be a year when everything was a little below the average. There were seven fewer hot days than the average for 40 years; 20 fewer days of frost; 12 fewer days on which rain fell, and 1½ inches less than the average amount of rain.

On the other hand, days of moderate warmth were 29 above the average, so that on the whole the year was milder than usual.

The rainfall in February was unusually small, ·65 inches, whereas in March, when dry, windy weather would have been acceptable, rain fell on 23 days out of 31, and amounted to 3½ inches.

Towards the end of May we had some hot weather, which continued more or less throughout June, but July, as a whole, was undoubtedly cooler than the average, and August also, so that the 4ft. earth thermometer never registered more than 54·5°. As the temperature at this depth is a fairly correct index of the balance of heat given out and received by the earth from the sun, and the years in which the 4ft. earth thermometer does not reach 56° are few and far between, it is clear that in 1913 there was a distinct deficiency of solar heat in this district.

The meteorological curiosity of the year was a fall of 2 inches of rain in Barnsley in 24 hours, between 9 a.m. on

September 17th and 9 a.m. on the following day. There has been no such downfall in Barnsley for the last 15 years, at all events.

The rather moderate rainfall in June, July and August seems to have produced conditions exceptionally favourable to the production of flies, and although the 4ft. earth thermometer did not reach 56° during any of these months, yet there was a considerable prevalence of Diarrhœa, with 46 deaths in the months of August and September alone.

The inclement weather of the first 4 months of the year also seems to have been responsible for some increase over the usual number of deaths from Respiratory Diseases, and these two causes seem to have been responsible for the increase in our nett death rate over that of the previous year.

Statistics

The population at the Census of 1911 having been 50,614 and my estimation of the population in July of 1912 51,800, I thought last January it would be wiser to count on an increase of 1,000 in the population rather than one of 1,500, and made my estimate 52,500 as being the population of the Borough at the middle of 1913, and so slightly under-estimate the population rather than over-estimate it, lest a possible diminution of the rate of increase of population should give us too low a death rate and birth rate. On this estimate of the population the following statistics are based.

During the year 913 deaths and 1,608 births were registered in the Borough of Barnsley, but certain corrections have to be made to both figures. Five of the births—all of them illegitimate—properly belong to other Districts, while one illegitimate birth registered outside the Borough belongs to Barnsley. Five births, therefore, have to be deducted, and 1 added, making a nett deduction of 4, and, therefore, during the year 1,604 births are properly credited to Barnsley, giving a birth rate of 30·55 ; the average for the previous 10 years being 33·84, and the 1912 birth rate being 30·38, so that although we are below the average of the 10 years there is a slight increase as compared with the previous year.

Of the 913 deaths registered in the Borough 176 were in public institutions, 90 of these being deaths of residents and 86 of non-residents, while 32 deaths of residents in the Borough occurred outside the District. The 86 non-residents registered in Barnsley have to be deducted, the 32 registered outside at other places have to be added, a nett deduction of 54. The nett deaths belonging to the Borough are therefore 859, giving a death rate of 16·36, compared with 17·89 for the previous 10 years, and 14·46 for 1912.

The death rate, consequently, is below the average for the 10 years, but 2 per thousand more than in the previous year.

Infant Mortality

Among infants or children under 1 year 237 deaths were registered, being 11 less than the average for the previous 10 years, but 79 more than in 1912. From these 237 deaths, two deaths of Infants who were not born in the Borough have to be deducted, leaving the nett Infant deaths 235. As the births during the year numbered 1604, the Infant mortality or deaths of Infants per thousand births is 146·50, the figure appearing in Table 1 being calculated on the gross number of Infant deaths registered.

The two main factors in this Infant mortality were Diarrhœa, which caused 46 deaths, and Premature Birth, which was accountable for 41 deaths. Bronchitis and Pneumonia caused 47 deaths, and Wasting Diseases 26 deaths.

All other causes had comparatively trivial effect on the Infant mortality.

The deaths of children under 5 years were 41 per cent. of the total deaths, as compared with a 10 year's average of 43·72 per cent. and the 33·42 per cent. in 1912, this deterioration being apparently almost wholly due to the excess of Infant deaths.

Infectious Diseases

The 7 principal Zymotic Diseases—Small-pox, Measles, Scarlet Fever, Diphtheria, Whooping Cough, Typhoid, and Diarrhœa caused 108 deaths in 1913, as compared with the 10 years' average 146·9, and 76 in 1912.

Measles caused 22 deaths (17), Scarlet Fever 7 (10), Diphtheria 7 (7), Whooping Cough 6 (24), Enteric Fever 1 (5), and Diarrhœa 65 (13).

(1912 figures in brackets).

Scarlet Fever, Whooping Cough, and Enteric Fever, therefore, show a diminution even as compared with 1912, while Measles and Diarrhœa are responsible for more than the whole increase.

The Zymotic death rate for the year is 2·06, compared with the 10 years' average of 3·19, and 1·48 in 1912.

Small-pox

Small-pox failed to make any appearance in Barnsley during 1913. The precautions taken in towns where the disease did appear seem to have been effective in preventing the spread of the disease to other towns.

Scarlet Fever

Of Scarlet Fever 72 cases only were notified, as compared with 170 in 1912, and a 10 years' average of 179 cases. This figure is somewhat of a surprise to me, because it seemed likely in 1912 that we had an increasing susceptible population liable to Scarlet Fever, and that the number of cases was likely to increase during 1913 to somewhere between 200 and 300 cases. Further, the small number of cases in Barnsley is the more surprising in that there have been widespread epidemics in neighbouring districts which use the Kendray Hospital, and, incidentally, use Barnsley also as a market town, and in these districts the overlooked case was a very serious factor in the epidemics, as was shown by the number of children who were sent to the Kendray Hospital in the later stages of the disease, so that it is somewhat hard to understand why Barnsley was fortunate enough to escape. Perhaps the high percentage of cases isolated in the Kendray Hospital from Barnsley has something to do with this diminished prevalence.

In Barnsley, at all events, the Kendray Hospital is not on the whole unpopular, and I think there is very little intentional concealment of the disease.

Enteric Fever

Typhoid Fever again showed a satisfactory diminution in the number of cases notified, the figures falling from 29 cases in 1912 to 14 in 1913. The cool Autumn weather may have had something to do with this, although the number of Diarrhœa deaths led me to expect that there might be also a serious amount of Typhoid Fever in the autumn.

During the past 10 years the high Diarrhœa death rate in August and September has nearly always corresponded with a high prevalence of Typhoid Fever in October and November.

I sincerely hope that your efforts in the reduction of Privy Ashpits in Barnsley is also a considerable factor in this diminution. If the experience of other towns is anything to go by, the diminished number of Privy Ashpits has always been followed by a diminution in the amount of Typhoid Fever, and I hope that in coming years there will be even more satisfactory reports to make in this matter than even in the present year.

Diphtheria

Once more there was an increase in the amount of Diphtheria cases notified during 1913, and for the first time since the Notification Acts came into force in Barnsley more cases of Diphtheria were notified than cases of Scarlet Fever. As compared with 10 years ago, the attack rate per thousand persons living has slightly increased, but the virulence of the disease appears to have slightly diminished, for a larger number of cases produced two fewer deaths. Possibly here again the opening of the Kendray Hospital for cases of Diphtheria has resulted in the saving of some lives.

There was certainly no School epidemic during the year, though the children attending Racecommon Road School seem to have been slightly more liable to attack than children attending other schools, and in the case of Diphtheria, as in the case of Scarlet Fever, we were not able to trace any connection with the milk supply.

Erysipelas

Nineteen cases of Erysipelas were reported during the year, compared with the 10 years' average of 28, and 29 cases for 1912. Two of the cases proved fatal, but nothing worthy of special record was found in connection with any of the attacked houses.

Puerperal Fever

No case of Puerperal Fever was reported during the year.

Other Notifiable Diseases

In all cases of Notifiable Infectious Diseases each case is visited as soon as possible after the receipt of the Notification, and the sanitary condition of the premises is investigated. The milk supply, the amount of bedroom accommodation, and the number of occupants of the bedrooms are ascertained, and the parents or friends of patients suffering from Scarlet Fever, Diphtheria, or Typhoid Fever are urged to take advantage of isolation in the Kendray Hospital. In cases of Scarlet Fever and Diphtheria, any School attended by the children from the infected house is warned of the danger of infection, and to exclude such children for a specified time. When the patient has been removed to the Hospital, or, if kept at home, has sufficiently recovered, the house is disinfected by a spray of formalin solution, while any clothes or bedding are disinfected by steam in a " Thresh " Steam Disinfector.

Not a single case of Poliomyelitis or of Cerebro-Spinal Meningitis was notified during the year.

Of the principal Zymotic Diseases which are not notifiable in Barnsley—namely: Measles, Whooping Cough, and Diarrhœa —Diarrhœa caused 65 deaths, Measles 22 deaths, and Whooping Cough only 6 deaths, as compared with 13 deaths from Diarrhœa, 17 from Measles, and 24 from Whooping Cough in 1912.

Diarrhœa

Although the 4ft. earth thermometer never reached 56° Fahrenheit throughout the year, there was a very considerable number of deaths from Diarrhœa in August and September. Fifty-five of the whole number of deaths occurred in August, September, and October, 3 being registered in the first half of August, 17 in the second half of August, 16 in the first half of September, 10 in the second half of September, 7 in the first half of October, and 2 in the second half of October.

The great prevalence of the disease was, therefore, from the middle of August to the middle of October. Whether the deficient rainfall in June, July, and August was in any way responsible for the epidemic I should not like to say, but I have noticed in the past that heavy rainfall in August often checks an epidemic of Diarrhœa, even when the other conditions are favourable for a big epidemic.

It is at least suggestive that after the extremely heavy downpour of rain on the 18th September, followed by a rainy beginning of October, the epidemic began to subside.

We made every effort to get manure heaps cleared away week by week, but I fear that there will always be some members of the public who will consider this precaution a fad of the Medical Officer of Health, and will passively resist a measure which might be the means of saving many lives could it be efficiently carried out.

I am almost forced to the conclusion that the excessive Diarrhœa death rate of Barnsley is due to flies and dirt, including under the heading "dirt" privy ashpits, accumulations of manure, and the rather dirty habits of a certain section of the population.

I make this last statement after careful consideration; for, when visiting houses which structurally seemed unfit for human habitation, just one or two of these houses were kept as clean as the proverbial new pin, and the rest were very decidedly not kept clean. The clean houses, though structurally unfit, by reason of their cleanliness seemed quite possible places for poor elderly couples to live in, whereas those which were not kept clean were obviously unfit for human habitation.

Some houses, therefore, in Barnsley, one must conclude, are rendered unfit for human habitation by reason of the personal lack of cleanliness on the part of their tenants.

It is difficult, otherwise, to explain why a place like Brighouse, with a population of 21,000—a third of that of Barnsley—should only have had 3 deaths from Diarrhœal diseases during 1913, whereas Barnsley had 65.

The Diarrhœa death rate of Barnsley is 1·24 per thousand persons living. While the whole Zymotic death rate of Leeds is only 1·27 per thousand persons living, and that for

Brighouse ·42, Leeds, after Barnsley, has the highest Zymotic death rate of the big towns in the West Riding.

I emphasise this point so that the public of Barnsley may become aware how urgently necessary it is that your Committee should take the action they propose taking in regard to the Privy Ashpits of the town. I fear it is beyond the powers of any Sanitary Committee to make dirty people clean, or even desire to be clean, but over privies and manure heaps the Sanitary Committee has power, and this factor in our high Diarrhœa death rate is the only one over which you have control, and is, therefore, the point at which you must make your effort to improve the Infant Mortality and Diarrhœa death rate of Barnsley.

Measles

The Local Government Board, in March, 1914, asked for a special report on the deaths from Measles registered in January, 1914. From my records it was clear that January was only the climax of an epidemic which started in October, 1913, and lasted till March, 1914. I, therefore, prepared the following report on the whole epidemic, and as the first part of it occurred in 1913, I include it in this report on the year 1913.

COUNTY BOROUGH OF BARNSLEY.

REPORT ON MEASLES EPIDEMIC, 1913-1914.

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

In October there began a serious epidemic of Measles which lasted for six months, reaching its height in January, and beginning to subside in February and March, 1914. During those six months no less than 56 deaths were caused by Measles, of which 10 were attributed to Measles only and the remainder to Measles and some complication, the complication being in 38 cases Broncho-Pneumonia, 7 cases true Pneumonia, 1 case Whooping Cough and Broncho-Pneumonia. Four of the deaths were registered in October, 4 in November, 8 in December, 24 in January, 1914, 10 in February, and 6 in March.

Throughout the epidemic the fatality fell with the greatest severity on the South East Ward, in which there were altogether 33 deaths from Measles, in the North Ward there were 8 deaths, in the South Ward 6 deaths, in the East Ward and the South West Ward there were 4 deaths each, and in the West Ward 1 death.

Divided into age periods, of the 56 deaths 17 were among

Infants, 18 children between 1-2 years, 7 children between 2-3 years, 9 children between 3-4 years, 2 children between 4-5 years, 2 children between 5-6 years, and 1 child between 6-7 years.

Twenty-six of the Children who died were boys and 30 were girls. Every single one of the deaths occurred in the houses for which the rates are compounded.

As might be expected, the majority of the parents were workers in the Coal Mines, either as Coal Getters, Trammers, or Labourers. The exceptions were: Builder's Labourer 1, Provision Dealer's Traveller 1, Iron Moulder 1, Bottle Blowers 6, Coal Carter 1, Hawkers 2, Platelayer 1, Fruit Salesman 1, Pork Butcher 1, Gardener 1, Painter 1.

Apart from the information given me by your Lady Visitor that Measles were beginning to be prevalent in the houses she visited, the earliest intimation of the epidemic came to me from the Doncaster Road Schools, where 51 Infants of the 383 on the books were reported to be actually suffering from Measles on the 27th October, and I advised you to close the Infants' School from the 28th October to the 26th November, a period of 4 weeks. Subsequently, St. George's Infants' School was also closed for 4 weeks from the 17th December to the 17th January, and the babies' class at Grove Street for the same period.

There seems to be consensus of opinion that very little can be done to check a Measles epidemic when the infection is particularly virulent by School closure, but in the case of children under 6 years (since under that age the infection of Measles is specially dangerous) it hardly seems fair that they should run the risk of catching it at School in addition to their chances of catching it in their homes and the homes of their friends. Therefore, my policy continues to be to close an Infant's School so soon as it is reported to me that 10 per cent. of the children on the rolls are actually suffering from Measles.

During the seven months ending April 30th we have had at the Kendray Hospital frequent invasions of Measles in our Scarlet Fever Ward, and we had in all 50 cases of Measles among children under 5 years, with 2 deaths of children already seriously weakened by Scarlet Fever. It is, therefore, probable that for every Measles death there are about 25 cases which do not die, possibly more, so that 56 deaths from Measles represent 1,000 or 2,000 cases.

As I have many times reported to you, the great difficulty about controlling an epidemic of Measles is that the children are infectious for three or four days before they develop the characteristic rash. Therefore, it is impossible by early notification to prevent the disease spreading. Before a case could possibly be notified, it would probably have done all the mischief of which it was capable. The impossibility of controlling Measles seems to be so fully recognised that at a meeting of School Medical Officers, when the question was discussed, the Medical Officers of certain Secondary Schools went so far as to say that it would be better if children were allowed to catch Measles between the ages of 7 and 10, apparently in order that the Medical Officers of the said Secondary Schools might be saved the bother of a Measles epidemic. If Measles is so impossible to control even in a big public school, with a highly expert Medical Officer with all the resources of the discipline of such a school at his command, it seems almost hopeless that we should expect to be able to control the spread of Measles in Barnsley.

From the statistics with which I began this report three things stand out very clearly. The danger age is really below 4 years, only 5 of the 56 deaths being in children more than 4 years old. Secondly, the most dangerous age of all is under 2 years, 35 of the deaths having occurred under that age. Thirdly, assuming that where no complication is mentioned the children died from acute Measles poisoning, only 1 out of 5 of the deaths were due to this cause. Only 10 of the whole number of deaths are attributed to Measles only. In the 46 other cases Pneumonia or Broncho-Pneumonia were contributing causes.

This fits in entirely with my experience of the disease at the Kendray Hospital and elsewhere. On the first two days of the rash a certain small proportion of children pass through a very dangerous time, when their symptoms are those associated with the phenomenon of anaphylaxis; that is, the breathing becomes extremely rapid (I have seen it as high as 90 respirations per minute in a case which was fortunate to survive). The pulse also becomes exceedingly rapid and rather feeble—sometimes alarmingly feeble, so much so, that the use of stimulants is urgently necessary; the most satisfactory of stimulants being the hypodermic injection of minute doses of strychnine. This stage lasts about 12 hours, and if the patient survives it, the improvement then becomes very rapid. During these two days, and the following three or four, the cough in a bad case of Measles is very troublesome, and even with the most careful nursing Broncho-Pneumonia may make its appearance, and with careless nursing or exposure of the patient to cold this complication is likely to be much more common, and is very dangerous, particularly in small children.

We do, as a matter of fact, leave a leaflet pointing out the dangers of Measles at every house in Barnsley where a child is born, saving only those houses whose occupiers pay the rates themselves, and, therefore, presumably have sufficient means and intelligence to employ a medical man if their children happen to suffer from Measles.

The leaflet we distribute is as follows :—

"BARNSLEY URBAN SANITARY AUTHORITY."

"MEASLES."

"Measles neglected is a very dangerous disease.

"During the last ten years Measles has been the cause of more deaths in Barnsley than Small-pox, Scarlet Fever, and Diphtheria put together.

"On the average during the past ten years 33 children have died of Measles each year in Barnsley.

"A large majority of these children might have been saved by proper care.

"Nearly all these deaths were caused by some form of Inflammation of the Lungs following Measles.

"This means that it is very dangerous to let children recovering from Measles catch cold.

"All children suffering from Measles, however mild, should be kept in bed for one week, and in the house for another week.

"Get medical assistance early rather than late.

"Don't let children recovering from Measles run about the floor with bare feet.

"Don't let them sit on the doorstep in their nightgowns.

"F. J. SADLER,
"Medical Officer of Health,
"August, 1909."

Beyond this we cannot at present go, though possibly, in the near future, I, or my successor, may have recommendations to make to you on this subject.

I am, Gentlemen,
Your obedient Servant,
F. J. SADLER.

Whooping Cough

There was no very great prevalence of Whooping Cough during 1913. Six deaths, or ·12 per thousand persons living, were caused by this disease, two deaths occurring in the first quarter of the year, three in the third, and one in the fourth quarter.

As the average deaths from Whooping Cough in the past 10 years is 21, six deaths is a fairly satisfactory figure.

Influenza

Influenza caused 30 deaths during the year, there being a very serious prevalence of this disease in the first three months of the year, the greatest number of deaths in any one month being 11 in February, but even April, May, and June were not without deaths due to this cause.

Pulmonary Tuberculosis

Pulmonary Tuberculosis was notified in 109 cases—63 males, 46 females. To these have to be added 64 cases found in Schools, and notified for the first time during the year. There were also 4 cases of Non-Pulmonary Tuberculosis. There were, however, only 41 deaths from this disease registered during the year, giving a death rate of ·78 per thousand persons living, a figure which compares very favourably with other towns in the West Riding.

The greatest number of deaths from this disease in 1913 was between the ages of 45 and 65. The age periods 30 to 45 years and 15 to 25 years provide a number of deaths very nearly as large.

Respiratory Diseases

The total Respiratory death rate 3·58 was higher than in 1912, as indeed was the Phthisis death rate, the figures for the previous year being Phthisis ·54 and total Respiratory 2·88.

Open-air School

The Open-air School for tuberculous children was kept open throughout the year with satisfactory results.

The Lady Visitor, Mrs. Malkin, reports on her work as follows :—

December, 1913, Yearly Report.

	Houses Visited.	Revisits.	Children attended by Medical Man.
1913	1,450	304	156
1912	1,410	278	122

	Died before Visit.	Removals before Visit.	Advice accepted.	Advice refused.
1913	126	92	1,058	18
1912	80	103	1,043	54

	Breast Feeding.	Bottle Fed.	Improper Feeding.
1913	966	240	25
1912	1,000	182	47

Leaflets.—"How to bring up children," "Proportions of milk and water suitable for a baby's meal," "The dangers of Measles and how to avoid them," "Precautions against Epidemic Diarrhœa," distributed in every home.

"Improper Feeding," great improvement.

Measles, with complications such as Bronchitis and Broncho-Pneumonia, caused many deaths in the last quarter of the year.

Frances Mary Malkin.

The adoption of the Notification of Births Act did not take place till 1914, and, therefore, does not fall to be discussed in this report.

Privies and Water Closets

During 1913, 400 Privies were reconstructed and converted into Water Closets, and 100 additional Water Closets were provided for old property during the year.

The Closet accommodation of the Borough at the end of 1913 was as follows:—

	1913.	1912.	1911.	1910.
Privies with open Middens ...	110	134	143	257
Privies with covered Middens	2,260	2,492	2,741	2,924
Water Closets	3,080	2,609	2,197	1,807
Waste-water closets... ...	2,087	2,190	2,190	2,220

Milk Supply

Fourteen Cowkeepers are registered in the District, and also sell milk. There are also 35 Purveyors of Milk who do not keep cows.

There are 18 Cowsheds in which are housed, approximately, 85 cows. Twenty-nine inspections were made of the Cowsheds during 1913.

Under the Public Health (Milk and Cream) Regulations, 1912, the following action was taken during 1913:—

County Borough of Barnsley.

ANNUAL REPORT OF THE ADMINISTRATION OF THE PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912, DURING 1913.

Milk and Cream Not Sold as Preserved Cream.

During 1913, 48 samples of new milk were taken and examined by the Borough Analyst. In none of these was a preservative reported as being present. Six of the samples were found to be deficient in various respects, as reported elsewhere under the Food and Drugs Act.

Two samples of cream sold as preserved cream were taken and submitted for analysis to ascertain if the statements on the label as to a preservative were correct. Correct statements were made in both cases.

Determinations were made of milk fat in cream sold as preserved cream in two cases. In both the amount was above 35 per cent.

F. J. SADLER, M.D., D.P.H.,

Medical Officer of Health.

1. Milk and Cream not sold as Preserved Cream.

	(a). Number of samples examined for the presence of a Preservative.	*(b).* Number in which a Preservative was reported to be present.
MILK	48	None
CREAM	None	None

2. Cream sold as Preserved Cream.

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

(I).	Correct statements made ...	2
(II).	Statements incorrect	0
	Total...	2

(b) Determinations made of milk fat in cream sold as preserved cream.

(I).	Above 35 per cent.	2
(II).	Below 35 per cent.	0
	Total...	2

(c) Instances where (apart from analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed. —None.

(d) Particulars of each case in which the Regulations have not been complied with and action taken.—None.

3. Thickening Substances. Any evidence of their addition to Cream or to Preserved Cream.

Action taken where found.—None.

4. Other observations, if any.

F. J. SADLER.

The following is the statistical report of the Sanitary Inspector on the action taken under the Food and Drugs Act :—

FOOD AND DRUGS.

Of the 134 samples analysed there were :—

New Milk	48
Machine Skimmed Milk	6
Butter	17
Lard	9
Cheese	2
Jam	2
Castor Oil	4
Tea	5
Sugar	2
Coffee	1
Cocoa	2
Mustard	1
Pepper	2

Compound Liquorice Powder	2
Sweet Spirits of Nitre	2
Paregoric	4
Glycerine	5
Tincture of Rhubarb	1
Camphorated Oil	4
Whisky	5
Rum	3
Gin	3
Condensed Milk	2
Cream	2
Total	134

With the result that :—

New Milk	9	samples were of superior quality.
,,	20	samples were genuine.
,,	13	samples were of fair quality.
,,	6	samples were slightly deficient in milk fat.
,,	4	samples were found deficient in milk fat, and the Vendors were fined 5/- and costs respectively. Deficiency, 8·3, 7·83, 7·97, and 8·6 per cent.
,,	2	samples were found deficient in milk fat, and the Vendor was warned. Deficiency, 8·6 and 8·62 per cent.
Machine Skimmed Milk	6	samples all of which were genuine.
Butter	17	,, ,, ,,
Lard	9	,, ,, ,,
Cheese	2	,, ,, ,,
Jam	2	,, ,, ,

Castor Oil ...	... 4	samples all of which were genuine.
Tea	... 5	,, ,, ,,
Sugar	... 2	,, ,, ,,
Coffee... ...	... 1	,, ,, ,,
Cocoa... ...	... 2	,, ,, ,,
Mustard ...	... 1	,, ,, ,,
Pepper ...	... 2	,, ,, ,,
Comp'nd Liquorice Powder	2	samples which were prepared in accordance with the British Pharmacopœia.
Sweet Spirits of Nitre	... 2	samples which were genuine.
Paregoric ...	... 4	,, ,, ,,
Glycerine ...	... 5	,, ,, ,,
Tincture of Rhubarb	... 1	,, prepared in accordance with the British Pharmacopœia.
Camphorated Oil	... 1	sample deficient in camphor 33·3 per cent. The Vendor was summoned and fined 5/- and costs.
,, ,,	... 3	samples which were genuine.
Whisky ...	... 4	samples which complied with the standard.
,, ...	... 1	sample contained an excess of water 4·3 per cent. The Vendor was warned.
Rum	... 3	samples which complied with the standard.
Gin	... 3	samples which complied with the standard.
Condensed Milk...	... 2	samples which were genuine.
Cream ...	... 2	samples which were genuine. Both samples contained a Boron preservative which complied with the statement on the label.

Offensive Trades

Offensive Trades were carried on in 7 places in the Borough, and 23 inspections were made in the year of these places. They were found to be in a satisfactory condition. 1, Knacker's Yard has been inspected 4 times, and found to be satisfactory.

Twenty-seven seizures of unsound food were made (beef, mutton, and offal), the quantity amounting to 263½ stones.

As attention was called by the owners of this food in every case to its condition, no prosecution was undertaken.

No Canal Boats are registered in your District but 61 inspections were made of Canal Boats coming into the District from outside, and their general condition was found to be fairly satisfactory. No legal proceedings were taken.

Nuisances

4,487 inspections were made in 1913, 38 informal notices were served and complied with, 533 statutory notices were served and complied with in 485 cases. The total number of nuisances "in hand" at the close of 1912 was 37, and at the close of 1913 48. The total number of nuisances reported during 1913 was 453, of which 405 were abated during the year, and legal proceedings were taken in 3 cases.

Slaughter-houses

There are 21 Slaughter-houses in the District, of which 16 are registered and 5 licensed. They are all in private hands, and some of the older ones are not in a very satisfactory condition. In some cases the floor is constituted of stone slabs, and though kept scrupulously clean, the crevices between the stones, in my opinion, make this kind of floor quite unsuitable for Slaughter-houses, but I am not prepared to say that any one of these Slaughter-houses is in such a condition as to be a nuisance or a danger to public health.

Factories and Workshops

Twenty-seven inspections of Factories, 203 of Workshops, and 32 of Work Places were made during 1913. Eleven written notices were served in connection with the Workshops. No legal proceedings were taken.

The following defects were found and remedied in each case:—In 14 cases want of cleanliness; in 5 cases want of ventilation; 3 cases overcrowding; other nuisances, 6; sanitary accommodation unsuitable or defective, 7 cases; sanitary accommodation not provided for separate sexes, 2.

Twelve lists of outworkers were received from 6 employers.

Water Supply

The Water Supply continues satisfactory from your reservoirs at Ingbirchworth and Midhope.

The tabular statement of action taken under the Housing Regulations, 1910, is as follows:—

Housing

Number of dwelling-houses inspected under and for the purposes of Section 17 of the Act of 1909 ...	4,032
Houses found satisfactory on inspection	3,971
Number of dwelling-houses which on inspection were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	19
Number of representations made to the Town Council with a view to the making of Closing Orders	19
Number of Closing Orders made	19

Houses closed as unfit for habitation after Closing Orders were made	19
Number of dwelling-houses the defects in which were remedied without the making of Closing Orders	0
Number of dwelling-houses which after the making of Closing Orders were put into a fit state for human habitation...	2

General character of the defects found to exist—

Excessive dampness. General dilapidation.

Want of sufficient ventilation and of air space surrounding the house.

I consider there is very little doubt that the population of Barnsley continues to increase almost in the ratio of the decennial increase between the Census of 1901 and the Census of 1911. Therefore, I think we must regard with some concern the figures issued by the Borough Surveyor, in which the number of new houses, villas, and cottages, built for residential purposes, has decreased from 286 in 1909 to 199 in 1913. There has been, undoubtedly, a scarcity of suitable houses of the cottage type during 1913, and there is some evidence of overcrowding.

During 1913, 255 houses were visited on account of the presence therein of Infectious Disease or Tuberculosis. In every case the number of occupants, including the number of children, was ascertained. Of the houses with two bedrooms, I count those overcrowded with 7 or more occupants. In such two-bedroomed houses 11 persons were found once, 9 being children; 10 persons were found to be occupying two bedrooms on two occasions, 5 of the 10 being children; 9 occupants of two bedrooms 8 times; 8 occupants 3 times; and 7 occupants 5 times. In all, 19 cases of overcrowding in 255 houses, or 7·4 per cent.

In houses with three bedrooms, when there are 8 occupants, I consider the house overcrowded. In houses with 3 bedrooms 11 occupants were found once; 10 occupants once; 9 occupants 5 times; and 8 occupants 8 times; or 15 cases out of the 255, 5·8 per cent., total 13·3 per cent.

Out of the houses selected in this way by infectious diseases 13 per cent were overcrowded, and the overcrowding was serious in rather over 4 per cent. of the cases. The administrative difficulty is this, that where there are no houses of suitable size to let it is very difficult to take proceedings for overcrowding, because it is difficult to know where or how the overcrowding can be abated.

There seem to have been two main reasons for the slackness in building operations during 1913. The first was the dearness of money. In this District the most usual method of building cottage houses is for a speculative builder to buy a building site, and, with money borrowed on mortgage, to erect cottage houses on the site so bought, selling the property so soon as the houses are built and occupied. The builder is satisfied if he makes a profit of £10 or £15 per house built, and if he succeeds in selling his property, he buys a fresh site, mortgages once more, and repeats the operation. If for any reason the builder fails to sell the block of houses that he has built, his money is tied up, and he cannot proceed with further building operations till he has successfully sold his houses.

If I am correctly informed that this is the general procedure in this District, it is clear that when money is at 5 per cent. the margin of possible profit is seriously diminished. Therefore, a high Bank-rate is a serious deterrent to building operations.

Secondly, a case was decided in the Courts in 1912 where the profits of a builder of houses were taxed for increment duty, and, whether rightly or wrongly, I believe that a good many builders felt some insecurity as to whether they would be able to retain the whole of the profits of their enterprise, and where there is any such uncertainty a small capitalist clearly cannot afford to risk his money in building operations unless money is cheap.

Any possible increase of overcrowding in Barnsley will require to be very carefully watched, for it might even be necessary for the Corporation to consider the possibility of building houses themselves under the Housing and Town Planning Act. It is, however, quite possible that a return of cheaper money may produce an automatic increase in the amount of building operations in Barnsley.

Although it is regrettable that our death-rate and Infant Mortality and Zymotic death-rate show an increase on the previous year, Barnsley has not come out so badly in the incidence of Notifiable Infectious Diseases. The attack rate of Scarlet Fever in the 78 County Boroughs is 4·29 per thousand persons living. In Barnsley in 1913 it was 1·37, only 10 County Boroughs having a lower Scarlet Fever attack rate. In Diphtheria the aggregate attack rate was 1·49; that of Barnsley 1·41.

In the case of Diphtheria, therefore, Barnsley is very considerably higher up the list.

In Typhoid Fever the aggregate attack rate is 0·25 per thousand persons living, and Barnsley is 27th in the list with 0·25 per thousand persons living attacked by Typhoid.

In Erysipelas the aggregate attack rate is ·73. The attack rate in Barnsley was ·37, in this disease Barnsley being 10 from the bottom, so that in the matter of Notifiable Infectious Diseases Barnsley holds a fairly satisfactory position, and if some of the features of 1913 spur us on to greater activity in the future there are at least also some features on which we can look with satisfaction.

I have the honour to be,

Your obedient Servant,

F. J. SADLER, M.D., D.P.H., Oxon.,

Medical Officer of Health.

June, 1914.

To the Hospitals Committee of the Town Council.

Gentlemen,

During 1913, 692 cases were admitted to the Kendray Hospital, the highest number since 1908, and the second largest number of cases since the Hospital reached its present size in 1904.

Of these 692 cases, 443 were cases of Scarlet Fever, 55 were isolated as Typhoid Fever and 194 as Diphtheria.

Of the Scarlet Fever cases, 3 were members of the Staff who contracted Fever in the course of their employment.

The number of admissions from the time the Kendray Hospital reached its present dimensions, are as follows :—

1904	-	628 cases	1909	-	496 cases
1905	-	691 ,,	1910	-	422 ,,
1906	-	622 ,,	1911	-	542 ,,
1907	-	594 ,,	1912	-	501 ,,
1908	-	760 ,,	1913	-	692 ,,

From Barnsley itself 131 cases were admitted, of which 61 were Scarlet Fever, 12 Typhoid Fever, and 58 Diphtheria.

In tabular form, the various localities sent in cases as follows:—

	Scarlet Fever	Enteric Fever	Diphtheria	TOTAL
Barnsley - -	61	12	58	131
Wombwell - -	49	10	65	124
Worsbrough - -	115	2	5	122
Monk Bretton -	19	1	3	23
Darfield - -	10	2	5	17
Hoyland - -	58	5	14	77
Royston - -	2	0	7	9
Dodworth - -	12	1	0	13
Ardsley - - -	9	0	25	34
Darton - - -	43	13	5	61
Cudworth - -	61	7	5	73
Barnsley Rural -	1	2	2	5
Staff - - -	3	0	0	3
	443	55	194	692

There were 10 deaths among the 442 cases of Scarlet Fever, a case fatality of 2 2, which is slightly below the average of the preceding 10 years and satisfactorily lower than the case fatality of 1912, which was 3·3.

The type of Scarlet Fever was very nearly as severe as in the preceding year, and there was a great tendency for the patients to develop complications caused by various streptococci such as discharge from the nose and from the ears. So much was this the case that after consultation with Professor Dean, of Sheffield University, we decided that in 1914 we would try the effect of a sensitised streptococcal vaccine for every alternate case, this being the most up-to-date form of vaccine treatment, on the results of which treatment I shall have occasion to comment next year.

Among the 55 cases of Typhoid Fever there were 7 deaths, being a case fatality of 12·7, a slightly higher case fatality than in 1912, but 2 % lower than the average of the past 10 years.

Of the 194 cases of Diphtheria 9 died, a case fatality 4·6, which is an improvement on the previous year with a case fatality of 6·9.

Tracheotomy was required in 11 cases, and I regret to say that 5 of these died, so that 54·6 per cent. of the Tracheotomy cases were saved.

The Diphtheria of the year was undoubtedly of a very much more severe type than in the previous year, necessitating the administration of larger doses of anti-toxin. Whereas we used to find that for an ordinary case 2,000 units of anti-toxin was ample, this year we began to discover that in 8 or 10 days patients who had only received so small an amount were liable to complications such as paralysis and heart failure.

So much was this the case that I decided that for the present no child admitted with Diphtheria to the Hospital should receive less than 4,000 units, and in many cases we found it necessary to give as much as 10,000 or 12,000 units.

When I remind you that each 2,000 units of anti-toxin costs 2/9, this increased virulence of the type of Diphtheria has by itself added very appreciably to the cost of treating Diphtheria during the year.

It is universally admitted that the only way to prevent complications is to give sufficient anti-toxin to neutralise all the Diphtheria toxins which have been already set free in the body, and that anything short of this amount leaves toxins free to anchor themselves to various parts of the nervous system, and that means danger to the patient, if not death, so that the additional money spent in Diphtheria anti-toxin is not money thrown away, seeing that the lives of patients cannot be measured in terms of £ s. d.

The following tables give the record of Scarlet Fever and Typhoid Fever in the Kendray Hospital during the past 10 years.

SCARLET FEVER IN KENDRAY HOSPITAL.

Year.	Cases admitted.	Deaths.	Case fatality per cent.
1903	215	3	1·3
1904	462	12	2·6
1905	572	30	5·2
1906	494	14	2·8
1907	467	11	2·35
1908	587	23	3·9
1909	346	9	2·6
1910	310	5	1·7
1911	364	6	1·6
1912	362	12	3·3
In 10 Years	4,179	125	2·9
1913	443	10	2·2

TYPHOID FEVER IN KENDRAY HOSPITAL.

Year.	Cases admitted.	Deaths.	Case fatality per cent.
1903	101	20	19·9
1904	91	13	14·2
1905	98	9	9·2
1906	94	11	11·7
1907	87	16	18·4
1908	146	21	14·3
1909	123	21	17·
1910	55	10	18·
1911	64	10	15·6
1912	49	6	12·2
Totals	908	137	14·6
1913	55	7	12·7

My thanks are due to Dr. Fryer, the Matron, and the Nursing Staff for the indefatigable assistance which they have once more given me during the year; and also to Dr. Harold Horne for his assistance when Dr. Fryer was on his holiday and when I was taking mine; also to other Medical men who, in an emergency, have kindly given their assistance.

I have the honour to be, Gentlemen,

Your obedient Servant,

F. J. SADLER. M.D., D.P.H., Oxon.,

Medical Officer.

June, 1914.

TABLE I.

Vital Statistics of whole District during 1913 and Previous Years.

Year.	Population estimated to middle of each year.	Births.		Total Deaths Registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Nett Deaths at all Ages Belonging to the District.		Nett.		Zymotic Death Rate.
				Under 1 year of age.		At all ages.							Deaths under 1 year.	Deaths under 5 years.	
		Number.	Rate *	Number	Rate per 1,000 Births registered.	Number.	Rate *				Number.	Rate *	Per cent. of Total Deaths.		
1903	42400	1575	37·14	276	175·24	895	21·10	119	66	16	845	19·92	32·66	48·99	3·79
1904	43700	1506	34·46	274	181·94	850	19·45	129	67	34	817	18·69	33·66	49·73	4·42
1905	44000	1491	33·88	224	150·23	781	17·75	128	68	26	739	16·79	30·18	45·20	2·38
1906	44500	1567	35·21	270	172·30	886	19·91	147	72	20	834	18·74	32·37	46·88	3·55
1907	45000	1520	33·77	236	155·26	899	19·97	175	86	18	831	18·46	28·39	44·76	3·24
1908	45500	1624	35·69	263	161·94	913	20·06	167	77	24	860	18·90	30·58	43·14	3.23
1909	46500	1614	34·70	218	135·06	848	18·24	134	64	23	807	17·36	27·02	40·73	1·78
1910	48000	1581	32·95	244	154·32	794	16·54	111	55	22	761	15·86	32·06	45·85	2·66
1911	51000	1543	30·26	326	211·27	1102	21·61	177	94	48	1056	20·70	30·87	49·91	5·30
1912	51500	1565	30·38	158	100·96	769	14·93	157	64	40	745	14·46	21·20	33·42	1·48
Averages for years 1903 - 1912.	46210	1558	33·84	248	159·85	872	18·97	144	71	27	829	17·89	29·83	43·72	3·19
1913	52500	1604	30·55	237	147·75	913	17·39	126	86	32	859	16·36	27·36	41·09	2·06

* Rates calculated per 1,000 of estimated population.

Area of District (exclusive of area covered by water) 2,386 acres.

Total Population at all ages	50,614	at Census of 1911.
Number of Inhabited Houses	10,631	
Average number of persons per house ..	4·76	

TABLE III.

Cases of Infectious Disease notified during the year 1913.

NOTIFIABLE DISEASE.	Number of Cases Notified.								Total Cases removed to Hospital.
	At all Ages.	Under 1 Year.	1—5	5—15	15—25	25—45	45—65	65 and upwards	
Diphtheria (including Membranous Croup)...	73	1	15	47	7	3	...	...	58
Erysipelas	19	...	...	...	3	7	7	2	...
Scarlet Fever	72	1	18	45	4	4	...	...	61
Enteric Fever	14	...	2	2	3	7	...	...	12
TOTALS	178	2	35	94	17	21	7	2	131

Isolation Hospitals provided by Barnsley Corporation and Contributing Authorities ... ... { Kendray Hospital, Ardsley, nr. Barnsley.
Lund Wood Hospital, Monk Bretton, nr. Barnsley.

Total available Beds ... 150. Number of Diseases that can be concurrently treated ... 4.

TABLE II.

Causes of, and Ages at, Death in Barnsley during the year 1913.

DISEASES.	At all Ages.	Under 1 Year.	1—2	2—5	5—15	15—25	25—30	30—45	45—65	65—	70—	80—	90—
Measles	22	9	5	7	1	...	...	...	...	...	...	...	...
Scarlet Fever	7	3	3	...	1	...	...	...	...	...	...	...	...
Whooping Cough	6	...	4	2	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup ...	7	1	1	3	2	...	...	...	...	...	...	...	...
Enteric Fever	1	...	...	...	...	1	...	...	...	...	...	...	...
Epidemic Influenza	30	6	4	2	...	4	1	3	6	...	2	2	...
Diarrhœa	65	46	15	1	...	...	...	2	...	...	1	...	...
Erysipelas	2	...	...	...	...	...	...	...	1	...	1	...	...
Other Septic Diseases	4	...	...	...	1	1	...	1	...	1	...	...	...
Phthisis	41	1	1	1	2	11	1	11	12	1	...	...	...
Other Tubercular Diseases	44	13	11	7	9	2	...	1	1	...	...	...	...
Cancer, malignant Disease	52	2	...	...	1	1	...	6	30	8	4	...	...
Bronchitis	69	25	3	1	2	1	...	1	15	4	14	3	...
Pneumonia	31	4	3	3	3	4	2	4	5	2	1	...	...
Pleurisy	2	...	...	1	...	...	...	1	...	...	...	...	...
Broncho-pneumonia	44	18	11	9	2	...	...	1	2	1	...	...	...
Other Diseases of respiratory organs ...	1	1	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	7	...	...	...	...	...	...	2	3	1	1	...	...
Venereal Diseases	8	8	...	...	...	...	...	...	...	...	...	...	...
Premature Birth	45	45	...	...	...	...	...	...	...	...	...	...	...
Diseases and accidents of Parturition ...	9	...	...	...	...	2	2	5	...	...	...	...	...
Heart Diseases	77	...	1	...	3	2	...	13	21	7	23	5	2
Accidents	36	4	1	5	5	6	1	3	6	2	2	1	...
Suicides	6	...	...	...	...	...	1	...	4	...	...	1	...
Acute Rheumatism	1	...	...	...	...	...	...	...	...	...	1	...	...
Diseases of Nervous System ...	24	10	5	...	3	...	1	...	1	2	2	...	...
Diseases of Digestive System ...	21	4	...	1	...	...	1	1	8	3	3	...	...
Diseases of Urinary and Generative Systems	34	...	1	...	1	2	...	3	17	5	5	...	...
Old Age	40	...	...	...	...	...	...	...	2	...	18	18	2
Cerebral Hæmorrhage	29	...	...	...	...	...	...	...	13	3	11	2	...
Other Defined Diseases	61	10	2	4	1	...	2	3	21	7	11	...	...
Congenital Defects	22	21	...	...	1	...	...	...	...	...	...	...	...
Alcoholism	2	...	...	...	...	...	...	...	1	1	...	...	...
All other Causes	9	4	...	...	...	...	1	...	1	1	2	...	...
ALL CAUSES	859	235	71	47	38	37	13	61	170	49	102	32	4

DEATHS ...	Male ... 455 Female ... 404	BIRTHS ... 1,604	Male ... 806 Female ... 798
Deaths of Non-Residents registered in Public Institutions in the District	86	Illegitimate included in above	Male ... 54 Female ... 49
Deaths of Residents in Public Institutions in the District	90	Total Deaths in Public Institutions	176

TABLE IV.

Deaths from Phthisis and Respiratory Diseases.

Class of Disease.	Total Deaths.	Deaths per 1,000 Persons living.	Percentage of Total Deaths.
Phthisis	41	.78	4.81
Bronchitis	69	1.31	8.06
Pneumonia	31	.59	3.65
Pleurisy	2	.04	.04
Broncho-Pneumonia and other Respiratory Diseases	45	.86	5.32
Total	188	3.58	21.88

TABLE V.

Showing the number of Deaths from each of the Seven Principal Zymotic Diseases in the Twelve Years 1902 to 1913, omitting Deaths from other Sanitary Districts, but including Deaths from Barnsley in the Kendray and Lund Wood Hospitals.

DISEASE.	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	Average Number of Deaths for 10 years, 1903-1912.	Deaths in 1913.	Zymotic Death Rates, 1913.
Small-pox	1	5	3	...	...	...	...	...	...	...	·90	...	...
Measles	56	23	28	11	44	10	26	8	90	17	31·30	22	·42
Scarlet Fever ...	2	11	8	17	10	12	3	1	2	10	7·6	7	·13
Diphtheria and Membran. Croup	9	9	4	7	4	1	...	2	4	7	4·7	7	·13
Whooping Cough	21	27	3	17	24	32	1	53	12	24	21·4	6	·12
Enteric Fever ...	10	19	8	7	11	16	10	7	11	5	10·4	1	·02
Diarrhœa	62	99	51	99	53	76	43	57	153	13	70·6	65	1·24
TOTALS ...	161	193	105	158	146	147	83	128	272	76	146·9	108	2·06

TABLE VI.

Births and Deaths registered' Deaths under 12 Months; and Number of Deaths from various Causes in each Month of the year 1913; and also Deaths in Public Institutions.

1913.	Births.	Deaths.	Deaths under 1 year.	Scarlet Fever.	Diphtheria and Membranous Croup.	Typhoid Fever	Measles.	Whooping Cough.	Respiratory Diseases, except Phthisis.	Influenza.	Phthisis.	Injuries.	Diarrhœa.	Public Institutions.
January ...	152	84	16	...	...	...	4	1	22	4	8	2	...	15
February ...	106	82	29	...	...	...	...	...	30	11	2	3	...	21
March... ...	128	76	17	...	...	...	...	1	13	3	5	7	...	19
April	140	81	17	2	...	...	...	...	21	2	7	2	...	14
May	129	63	13	3	...	...	...	...	6	2	3	2	1	9
June	138	52	13	...	...	...	...	...	10	4	3	...	1	10
July	149	57	14	...	...	...	...	1	6	1	2	4	4	16
August ...	116	68	30	...	2	...	...	2	4	1	1	1	20	9
September ...	144	74	30	...	1	...	2	...	4	1	...	5	26	14
October ...	127	68	15	...	...	...	4	1	6	...	3	1	9	14
November ...	138	69	16	2	1	1	4	...	7	1	7	3	4	21
December ...	141	85	24	...	3	...	8	...	18	...	...	6	0	14
Totals ...	1,608	859	235	7	7	1	22	6	147	30	41	36	65	176

TABLE VII.

Temperature and Rainfall in Barnsley in 1913.

Month.	Maximum	Minimum	Days on which 50° was reached.	Days on which 70° was reached	Days of Frost	Days on which 4 ft. Earth Therm'meter registered 56° or more.	Days on which Rain fell	Amount in Inches
January ...	51°	23°	2	...	11	...	20	3·33
February ...	51°	29°	7	...	8	...	11	·65
March ...	55°	26°	10	...	2	...	23	3·52
April	62°	30°	23	...	2	...	18	2·71
May	76°	36°	31	4	...	...	14	2·24
June	76°	45°	30	9	...	...	10	·54
July	73°	45°	31	6	...	...	12	1·54
August ...	79°	44°	31	7	...	...	8	1·16
September ...	73°	41°	30	2	...	...	15	2·93
October ...	62°	37°	29	...	...	...	16	3·10
November ...	57°	32°	18	...	1	...	20	1·79
December ...	53°	25°	7	...	8	...	10	1·36
TOTALS ...	...	...	249	28	32	*Nil.*	177	24·87
Average for preceding 40 years			220	35	52	Av. for 21 yrs. 46	189	26·43

TABLE VIII. (Table IV. of L. G. B.)

INFANT MORTALITY. Nett Deaths from stated Causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.	Under 1 week	1–2 weeks	2–3 weeks	3–4 weeks	Total under 1 month	1–3 months	3–6 months	6–9 months	9–12 months	Total Deaths under 1 year
Chicken-pox	...	...	...	...	...	...	...	...	1	1
Measles	...	...	...	...	...	...	...	1	7	8
Whooping Cough	...	...	1	...	1	...	...	2	1	4
Diphtheria and Croup	...	...	...	...	...	...	...	1	...	1
Abdominal Tuberculosis	...	...	...	...	...	...	1	...	1	2
Other Tuberculous Diseases ...	...	...	...	...	...	...	1	1	1	3
Convulsions	2	2	...	2	6	3	1	1	4	15
Laryngitis	...	...	...	...	...	1	...	...	...	1
Bronchitis	...	2	4	...	6	11	3	2	2	24
Pneumonia (all forms)	1	...	...	...	1	4	6	6	6	23
Diarrhœa	...	...	6	1	7	8	14	10	7	46
Enteritis	...	...	...	...	...	...	1	1	1	3
Gastritis	...	...	1	...	1	...	...	...	...	1
Syphilis	...	...	1	1	2	...	...	...	...	2
Suffocation, Overlying	...	...	...	...	...	2	...	...	...	2
Atelectasis	5	...	...	...	5	...	...	...	...	5
Congenital Malformations	4	2	1	...	7	2	1	1	...	11
Premature Birth	32	4	3	...	39	2	...	...	...	41
Atrophy, Debility, and Marasmus...	12	1	...	...	13	4	5	2	2	26
Other Causes	4	2	...	1	7	5	2	...	2	16
TOTALS	60	13	17	5	95	42	35	28	35	235

NETT BIRTHS in the year { legitimate .. 1,501
{ illegitimate .. 103

NETT DEATHS in the year of { legitimate infants .. 213
{ illegitimate infants .. 22

TABLES A to D.

A SCARLET FEVER DEATH RATES FOR 43 YEARS.

Years.	Scarlet Fever Death Rates.	Years.	Scarlet Fever Death Rates.	Years.	Scarlet Fever Death Rates.	Years.	Scarlet Fever Death Rates.	Years.	Scarlet Fever Death Rates.
1871	·17	1881	·13	1891	·25	1901	·44	1911	·03
1872	·04	1882	1·24	1892	·24	1902	·14	1912	·18
1873	5·06	1883	·30	1893	·58	1903	·04	1913	·13
1874	2·80	1884	3·87	1894	·10	1904	·25	...	...
1875	·62	1885	1·71	1895	·40	1905	·18	...	...
1876	·27	1886	1·52	1896	·59	1906	·38	...	...
1877	·27	1887	1 78	1897	·54	1907	·22	..	...
1878	·57	1888	·49	1898	·02	1908	·27	...	...
1879	1·58	1889	·23	1899	·21	1909	·06	...	...
1880	1·58	1890	·05	1900	·32	1910	·02	...	...

C Number of Deaths in Barnsley from the seven principal Zymotic Diseases during Four Decades, and in the years 1911—1913, including Deaths at Kendray and Lund Wood Hospitals of Barnsley Residents.

	Decade 1871-1880	Decade 1881-1890	Decade 1891-1900	Decade 1901-1910	Years 1911-1913
Small-pox	9	4	5	11	0
Measles	130	195	299	287	129
Diphtheria	23	58	65	65	14
Whooping Cough ...	135	175	195	202	42
Typhoid Fever ...	197	75	145	138	17
Diarrhœa	456	358	650	681	231
Scarlet Fever ...	342	355	135	88	19

N.B.—The Kendray Hospital was opened in 1891.

D Comparative Table of Notifications for preceding Twenty One Years.

Year.	Small-pox.	Scarlet Fever	Diphtheria and Membranous Croup	Erysipelas.	Puerperal Fever.	Typhoid Fever.	Total Notifications
1892	43	112	57	29	2	11	254
1893	26	283	79	63	9	236	696
1894	5	240	51	39	4	125	464
1895	3	280	36	33	6	124	482
1896	1	326	52	26	10	76	491
1897	...	230	18	37	6	52	343
1898	...	99	18	33	2	133	285
1899	...	151	20	40	8	76	295
1900	...	297	47	28	9	87	468
1901	...	396	43	36	10	164	649
1902	15	346	52	39	11	86	549
1903	38	105	52	33	7	58	293
1904	89	222	56	38	4	78	485
1905	59	255	29	28	5	66	442
1906	...	244	45	42	4	53	388
1907	...	249	24	22	4	47	346
1908	...	240	16	28	2	78	364
1909	...	104	11	16	1	58	190
1910	...	84	22	29	1	23	159
1911	...	118	34	23	1	52	228
1912	...	170	62	29	2	29	360
Average of preceding 10 years	18·6	179·1	35·1	28·8	3·1	54·2	325·5
1913	...	72	73	19	...	14	178

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

AND OF THE

SCHOOL MEDICAL OFFICER

FOR THE

BOROUGH OF BARNSTAPLE.

1913.

BARNSTAPLE :

HENRY PINCOMBE, PRINTER, STRAND.

Rackfield House,
Barnstaple.

January 31st, 1914.

To the Chairman and Members of the Barnstaple Town Council, and Education Authority.

Gentlemen,—

I have the pleasure to present the Annual Report on the Health and Sanitary Administration of the Borough for the year 1913.

Included with it is the Report for the year 1913, shewing the work done by the School Medical Officer under the Code of Regulations for Public Elementary Schools, 1908.

Your obedient servant,

HERBERT C. JONAS.

Summary of the principal items of the Vital Statistics, &c., for the year 1913, compared with the same for 1912, and, where available, with those for the 145 smaller towns of England and Wales.

Area of Borough ... ... 2,359 acres.
Population (estimated). 1913 ... 14,552.

	1912.	1913.	England & Wales, smaller towns.
Birth Rate	20·40	16·90	23·95
Death Rate	15·64	14·01	13·0
Infectious Diseases, Death Rate	0·04	0·61	
Tuberculosis Death Rate ...	1·44	1·66	
Cancer Death Rate	1·17	1·64	
Infant Mortality	77·70	93·49	112·0

(A.) NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT.

The Borough of Barnstaple comprises an area of 2,359 acres. It is situated on the banks of the estuary of the Taw, and the greater part of the town is on the north-eastern bank. The town is pleasantly situated : surrounding hills shelter it from the north and east winds. The tide runs up to Newbridge on the Exeter road, nearly four miles out of Barnstaple.

The census of 1911 gives the population as 14,484.

The estimated population up to the middle of 1913 was 14,552.

There were 3,539 inhabited houses in 1911.

The chief industries are agriculture (mainly sheep and cattle raising), cabinet making, glove manufactory, lace net making, and pottery.

POOR LAW RELIEF.

The average number of persons in receipt of relief for the year ending September 30th, 1913, in the Borough of Barnstaple is :—

Males	Females	Children	Total
55.	199.	131.	385.

A meteorological report has been kindly given by Mr. Wainwright, and will be found as Table VI. at the end of this Report.

(B.) SANITARY CIRCUMSTANCES OF THE DISTRICT.

WATER SUPPLY.

The Borough is supplied with water by the Barnstaple Water Company. The water is derived from the river Yeo at Bratton Cross. It is of an excellent quality, and the supply is abundant. There is no pollution.

No instances of lead poisoning have occurred in the Borough. The supply is a constant one. The filtration beds are 8,800 square feet in extent.

The daily consumption is 677,000 gallons.

The whole of the watershed is within the area of the Barnstaple Rural District Council, and is very carefully supervised by their sanitary staff.

RIVERS AND STREAMS.

The river Taw is polluted by receiving the crude sewage from Barnstaple and other places on its banks.

In estimating the importance to health of this pollution there are several factors to be considered.

The estuary is very broad and over a large part of its course very shallow, and consequently any sewage left by the tide gets constantly arrated.

The river brings down a very large quantity of flood water, and the rainfall is heavy. The Taw rising on Dartmoor, receives at South Molton Road at least an equal volume from Exmoor by way of the Mole and Bray. A glance at the map will show what a very large area for its length the river does drain. The constant flooding effectually cleans the bed of the river. Salmon ascend the river annually, and in 1913 they came up in increasing numbers. This is not usually the case if the sewage pollution is serious.

Again, Barnstaple sewage is diluted with a large quantity of storm water and subsoil water, since the rainfall on all the surrounding hills drains into the sewers.

It would appear from the report of the Royal Commission on the pollution of rivers that they recommend considerable alterations in the present methods of dealing with river pollution, and they suggest that experiments should be carried out for a considerable time to come.

Considering the fact that any scheme for dealing with the Barnstaple sewage is bound to be extremely costly, it would not be advisable for the Council to undertake a vast scheme which may eventually prove to have been an experiment which has failed.

The two main dangers to public health from this pollution are (1) eating shell-fish and (2) bathing in the river near the outfall.

At present the cure for these two causes rests with the people themselves. And the double warning may once again be given to them in this Report.

It is dangerous to eat any shell-fish gathered in the Taw or Torridge, and bathing should not be indulged in anywhere within the neighbourhood of the town.

DRAINAGE & SEWERAGE.

There are two outfalls on the east side of the river, one at Castle Quay and one at Pottington. A third is situated on the west side of the river at Bridge Wharf; this takes the drainage from the Sticklepath district.

This latter sewer carries a heavy amount of storm water, and has, unfortunately, a very small fall at the lower portion. Consequently, when a heavy storm coincides with a high spring tide, flooding sometimes occurs, The matter is engaging the attention of the Council.

SCAVENGING.

House refuse is collected in a covered cart, and is at present being used to fill up some old clay pits by the Braunton Road. The field which was used in the Derby district last year is no longer in use.

This year an attempt was made during the hot weather to collect refuse twice a week from certain districts specified by the Medical Officer, but it was found that the amount so collected was very small, so that the practice was discontinued.

It is still to be regretted that proper covered ash-bins are not more generally used. There are still very many filthy boxes in use throughout the Borough.

CLOSET ACCOMMODATION.

Water closets are used everywhere in the district with a few exceptions. What earth closets there are, are not too well kept, and it would be advisable to issue printed instructions to each householder explaining the best way to keep them clean and sanitary.

SANITARY INSPECTION OF THE DISTRICT.

The following report is given by Mr. Hill, showing the work done during the year .—

Pilton, Barnstaple,
January, 1914.

To the Chairman and Members of the Urban District Council.

Gentlemen,—I beg to report the following :

Number of Complaints received during the year	150
,, Houses inspected	328
,, Inspections made	1218
,, Preliminary Notices given	114
,, Statutory Notices served	105
,, Official reports made	15
,, Houses re-drained throughout, with new connections to sewer	94
,, House drains repaired and put in order	28
,, Dwelling houses made reasonably fit	82
,, Dwelling houses under repair	33
,, Houses condemned as unfit for human habitation	11
,, New Water Closets built	23
,, Water Closets repaired	94
,, Privies converted into Earth Closets	1
,, Privies converted into Water Closets	3
Visits to Dairies, Cowsheds, and Milkshops	60
,, Workshops, Bakehouses. and Outworkers' premises	142
,, Common Lodging Houses	16
,, Slaughter-houses	218
Cases of Overcrowding Abated	3
Heaps of Manure, &c.. removed, and various nuisances abated	18
Number of Houses disinfected	158
,, cleaned and limewashed	48
Quantities of Disinfectants served out	1680
Samples of Water taken for analysis	2
Condemned	0

The carcases of 3 bullocks with the offal have been condemned as unfit for human consumption and destroyed ; also one lot of unsound fish seized and destroyed.

I am, Gentlemen,
Your obedient servant,
JOHN HILL, A R.S.I.

Premises and occupations which can be controlled by Bye-laws :—

COMMON LODGING-HOUSES.

Of these there are two. Both are well kept.

OFFENSIVE TRADES.

Fell Mongers, 2.
Fried Fish Shops, 4.
Manufacture of Tar and Sulphate of Ammonia, 1.

Complaints of an offensive smell causing a nuisance were made with regard to one fellmonger. Nothing definite was found on repeated inspection, but the owner was communicated with, and since then presumably more care has been exercised, since no further complaints have been made.

SCHOOLS.

Mr. S. R. Gibbs continues to fill the post of School Medical Officer, and his report is included under this heading.

The general sanitary condition of all schools is satisfactory. The improvement this year in the Pilton lavatories is excellent, and it is to be hoped some of the other schools can be improved in the same way.

The cloak room accommodation still remains somewhat insufficient. The same remark applies to washing accommodation in some schools.

Bear Street, Barnstaple,
January, 1914.

To the Barnstaple Education Committee.

Miss Wright & Gentlemen,—

Your School Medical Officer begs to present his Sixth Annual Report upon the Medical Inspection of School Children in the Borough :—

The plan of previous years has been followed in dividing the subject into the following heads :—

A. The General and Sanitary arrangements of the schools.
B. The arrangements adopted for carrying out the inspection.
C. The Scope and Extent of Medical Inspection during the year.
D. The Physical Condition as revealed by Medical Inspection.
E. The action taken in regard to treatment.

Medical Inspection of Schools during the year.

There are eleven Public Elementary Schools in the Borough, with 14 departments.

The total number of children on the books at the end of the year was 1,923, which shows a slight increase on the low figure of the year 1912.

The children were distributed as follows:—

	1912	1913
Blue Coat	173	158
National Girls	145	143
,, Infants	130	158
Holy Trinity Boys	117	116
Holy Trinity Girls	149	126
Ashleigh Road Council (Mixed)	336	287
Cyprus Terrace Infants ...	78	163
Pilton Mixed	133	119
Pilton Infants	81	104
Roman Catholic	85	88
St. Mary Magdalene Mixed ...	141	125
St. Mary Magdalene Infants ...	64	83
Wesleyan Mixed	202	185
Wesleyan Infants	88	103
	1923	1898

HEATING ARRANGEMENTS.

These are quite satisfactory.

VENTILATION.

There is no change in this since the last report.

LIGHTING.

This is good at most of the schools. A new window has been recommended to be put in at one of the schools in one class-room which was slightly deficient.

CLOAK ROOMS.

The accommodation in this department is still far from sufficient.

CLEANLINESS OF CLASS-ROOMS.

This is satisfactory, and the work is well done.

WATER SUPPLY.

Very good. Washing accommodation still insufficient in several schools.

SANITARY OFFICES.

These continue to improve. A complete new lavatory has been built at Pilton School, which reflects great credit on those who are responsible for it. It consists of w.c's. and urinals, and is a great improvement on what was there before.

EQUIPMENT.

Is gradually improving.

(B). ARRANGEMENTS FOR CARRYING OUT SCHOOL INSPECTION.

The examination of this year has been occupied with the following groups :—

1. Entrants to Infants' School, 4–5.
2. Entrants to Upper School, 7–8.
3. Leavers, 12–13.
4. Children of other ages needing examination.
5. Children who were referred as needing treatment at previous examinations.
6. Children who were referred as needing supervision at previous examinations.

7. A number of children referred for treatment were gone especially into this year. to see how many actually receive treatment and improve as the result ; and a table will be found at the end of this section.

The School Medical Officer cannot speak too highly of the assistance given him by the teachers of the various schools, as in the absence of a school nurse or visitor it would be impossible to get through the work without their very active help, which is most willingly given.

The examinations have been all carried out in school hours on school premises, with very little disturbance to work.

The parents do not attend very well on the whole, and the good percentage obtained at the end of 1912 has not been kept up ; but there have been very few cases of objections to examination on the part of the parents. The same arrangements for obtaining the presence of patients have been continued from last year.

A special inquiry was also carried out at the request of the Committee into the state of the children's teeth, which were found to be far from satisfactory ; and also a special inquiry was carried out with a view to providing especial treatment for mentally defective children in the Borough.

As the result of an inquiry into the cases of 247 children referred for treatment at previous examinations, the following figures were obtained :—

No. examined.	No. receiving no treatment.	No. receiving treatment.
247.	112.	124.

Of the 124 receiving treatment 119 had improved, and five shewed little or no improvement.

Of the 112 receiving no treatment 23 had improved, and 99 showed no improvement.

This means that an average of just about 50 per cent. of the children get adequate treatment.

(C). EXTENT & SCOPE OF THE MEDICAL INSPECTION DURING THE YEAR.

Visits to Schools and Departments	103
Number of children examined	708
Entrants and Leavers	472
Other Ages	68
Parents present	210
No. referred for treatment	222
No. referred for supervision or subsequent examination ...	102
No. examined as the result of defects noted in previous exams.	368

Diseases referred for medical treatment :—

Tonsils	29
Adenoids	26
Nits...	17
Defective teeth	99
Deficient eyesight	35
Eye disease	9
Weak heart	5
Skin disease	4
Spinal curvature	3
Weak chest	2
General debility	6
Ear disease	6
Enuresis	1
Enlarged thyroid	2
Rupture	1
Enlarged glands	2
All other causes	6
Total	255

(D). PHYSICAL CONDITION AS REVEALED BY MEDICAL INSPECTION.

NUTRITION.

Good on the whole.

Age.	Number exam'ed.	Males.				Females.			
		Height.		Weight.		Height.		Weight.	
		ft.	ins.	st.	lbs.	ft.	ins.	st.	lbs
5—6	137	3	4½	2	10	3	4	2	9½
6—7	2	...	...	...	...	3	6	2	11
7—8	1	3	5	2	10½	...	...	...	...
8—9	172	3	11½	3	10½	4	0½	3	9
9–10	27	4	3½	4	7	4	1	4	0
10–11	63	4	2	4	2	4	4	4	3½
11–12	18	4	4	4	11	4	3	4	9½
12–13	112	4	7	5	1½	4	7	5	2½
13–14	19	4	9	5	11½	4	11	6	7
14–15	12	5	0	6	11	4	9½	5	11½

CLEANLINESS.

There is not much cause for complaint in this direction. Most of the trouble originates from a very small proportion of the children in the schools, who are gradually being weeded out, and it is hoped this year to make a special effort to get these few children quite clean. The clothing and boots of some of the children in the poorer parts of the town are very bad indeed.

RINGWORM.

This has been very scarce in the schools. There have been one or two cases in the town imported from outside, but they have been caught before being admitted into the schools. No case of ringworm of the scalp was discovered during the routine examinations. There have been a few slight cases of ringworm of the face and hands but they have caused no trouble.

CARIOUS TEETH.

The teeth of the children are very bad. A special report was drawn up with regard to the children's teeth by your Medical Officer, who with the consent of the Committee visited several of the schools with two qualified dentists, and drew up a scheme for treating the children's teeth, and the following conclusions were drawn and suggestions made : The question arose this year in an acute form as the present arrangements with the North Devon Infirmary were discontinued.

A specimen of the report and suggestions drawn up is appended :—

1. That the children of the ages of 7, 8 and 9 are the best ages to start with.

That the estimated number will be 250 ; that 200 of these need conservative treatment.

2. The work is well worth doing, and should be of permanent good to the children ; and the value of it to the physical well-being of the children in the town of the next generation cannot be overestimated.

3. That all the children should be examined at those ages by a qualified dentist, who should decide what should be done.

(*i.e.* : at 7, 8 and 9 at first, and in future as children arrive at age of 7).

4. That practically two permanent teeth per child need filling, in addition to extractions of temporary teeth, and so at least 400 fillings would be necessary in the first twelve months.

5. Tha thalf-an-hour per filling,including charting and change of patient, must be counted, and 200 hours would be necessary to do the work, or, at three hours a day, 67 days.

6. That refusals by parents must be reckoned upon, even up to 25–30 per cent. ; but that even then there would be ample work to keep a dentist employed for three hours a week.

7. That your School Medical Officer begs to recommend the starting of a dental clinic as being the only solution of the difficulty.

It was noticed again during the preparing of the report that the teeth of the children in the poorer schools, though far from good, were distinctly better than those in the better class schools.

TONSILS AND ADENOIDS.

There is an average number of children with enlarged tonsils and adenoids. Most of them obtain treatment by recommend at the North Devon Infirmary or Barnstaple and North Devon Dispensary.

GLANDULAR ENLARGEMENTS.

Only two children were referred for treatment for enlarged glands.

EYE DISEASES, DEFECTIVE VISION.

There still remains the difficulty of replacing broken spectacles

In some cases, where children only need glasses for reading, the head teacher keeps their glasses for them while at play, and, in the case of very poor children, even while they are at home.

EAR DISEASE.

This is not very prevalent.

ENLARGED THYROID.

There is a decrease again here, only two cases being referred

SPINAL CURVATURE.

Three cases were referred.

LUNGS.

No definitely tuberculous lungs were discovered by the Medical Officer during his routine examinations.

HEART AND GENERAL DEBILITY.

Five children were referred for definite and valvular disease of the heart, and six for general debility.

(E). ACTION TAKEN WITH REGARD TO MEDICAL TREATMENT.

This has not changed. There is closer working between the Attendance Officer and the School Medical Officer, and they are in almost daily communication with regard to the schools.

There has been a considerable amount of scarlet fever in the town, but during the year it did not necessitate the closing of the schools, largely owing to the extension of the Christmas vacation of 1912.

I beg to remain

Your obedient servant,

STANLEY R. GIBBS.

FOOD.

MILK SUPPLY.

The cattle used in the dairies are mostly Devons, which are very free from tuberculosis. A certain number of Channel Island cattle are used in many dairies presumably to give richness to the milk. But if the figures, given later, by Mr. Eddy be examined it will be seen that the addition of water is much too common. During the year 2 out of 5 samples of scald milk were adulterated, and there were besides 2 convictions for samples taken too late in 1912 to be reported on last year. It would be advisable for your Inspector to take samples more frequently this year in order to try and put a stop to this practice.

In the circular letter of 6th August 1912, from the Local Government Board it is advised that your Medical Officer of Health should exercise a general supervision over action taken under the regulations.

It is suggested to the Council that special attention should be paid this year to the scald milk supplied in the Borough, and that the Inspector under the Food and Drugs Act be directed to obtain frequent samples from various milkmen,

Barnstaple holds a very unenviable position in this respect in the annual report of the Local Government Board on the Sale of Food and Drugs Act. The following table has been compiled from that report. It shows the proportion of pure to adulterated samples taken under the act in 7 districts. The towns chosen are those whose populations are nearest in numbers to that of this Borough which is in the centre. The figures need no comment.

District.	Population.	Milk Samples.	
		Examined.	Adulterated.
Penzance ...	13,478	26	0
Beverley ...	13,655	21	1
Kendal ...	14,033	14	0
Barnstaple ...	**14,485**	**20**	**4**
Wenlock ...	15,244	6	0
Newark ...	16,408	34	1
Boston ...	16,673	24	0

OTHER FOODS.

During the year 3 bullocks have been surrendered and condemned with the offal, as the beasts had suffered from tuberculosis. One lot of fish was seized and condemned. The regulations of the Local Government Board as to meat inspection are followed by the Medical Officer of Health.

The food shops are clean and well kept.

The 5 private and 2 public slaughter houses are frequently inspected and are all kept very well.

There are no underground bakehouses. There are 20 upon ground and all are clean.

SALE OF FOOD & DRUGS ACT.

Mr. Eddy, Chief Constable, who is your inspector under the Act supplies the following report.

Sample	No. taken.	Genuine.	Adulterated.	Convictions.
Butter ..	7	7	0	0
Lard ...	6	6	0	0
Cheese ...	7	7	0	0
Pepper ...	1	1	0	0
Mustard ...	1	1	0	0
New Milk ...	9	9	0	0
Scald Milk ..	5	3	2	2
Scotch Whiskey	4	4	0	0
Total ...	40	38	2	2

RICHARD S. EDDY,

Chief Constable.

HOUSING.

Tabular statement of work done under the Housing (Inspection of District) Regulations, 1910.

No. of Dwelling Houses inspected under and for the purposes of Sec. 17	130
No. of Dwelling Houses considered to be in a state dangerous or injurious to health	118
No. of Dwelling Houses the defects in which were remedied without the making of Closing Order ...	81
No. of representations made to the Local Authority with the view to the making of Closing Order ...	13
No. of Closing Orders made	13
No. of Dwelling Houses which, after the making of Closing Order, were put in a fit state for human habitation	1
No. of Houses demolished	4

General character of defects found to exist :—Defective drainage, unpaved yards, inadequate ventilation to living and sleeping rooms, etc.

A large amount of time has been spent this year on the inspection of Green Lane and its improvement where possible.

The work is hampered as before by the scarcity of houses fit for habitation whose rent is within the means of the labourer.

The Yeo Vale estate provided some houses whose rents were very moderate, but recently there has been a rise in these rents, and, consequently, the occupiers have in some instances migrated to other parts of the town.

Some new houses are building and to be built on this estate, which should be suitable for the working classes, but the situation is by no means ideal, since the ground on which they are built is a reclaimed marsh, and is still liable to floods.

Three cases of over-crowding have been abated.

(C.) SANITARY ADMINISTRATION OF THE DISTRICT.

The Sanitary Inspector's report is enclosed elsewhere, and from it it will be seen that a very large amount of work has been done during the year. The Clerk of the Works continues to do the drain testing for new construction, and this plan is a success, as it sets Mr. Hill free for more important duties connected with sanitation.

Hospital Accommodation

Is provided for 18 patients in 3 wards. This is sufficient in numbers for the needs of the town, but the Hospital is an old prison converted at different times, and the site is not ideal for the purpose. The Council have received no further communication with regard to the joint hospital foreshadowed by the County Medical Officer, and so at present are obliged to do what they can with the present building. At the present time alterations are being made to improve the entrance for patients, and provide for a lift, so as to avoid carrying them up an awkward staircase.

A Joint Hospital would be an enormous improvement for this district, since it would be always open for the reception of patients; whereas at the present time should, the Hospital be closed, there is always a tendency to accept any form of makeshift isolation rather than re-open the Hospital.

The Hospital has been opened twice this year, once for the reception of a scarlet fever case occurring in business premises, and once to take in an enteric living in lodgings.

There is no accommodation in the district for small-pox patients. The matter has received considerable attention from the Council, and at one time a site had nearly been acquired. But, owing to local and sentimental opposition, the scheme fell through. However, the Council are fully alive to the importance of this question, and are agreed that some provision must be made.

With an estuary such as the Taw there could be no difficulty in providing a Hospital Ship for such cases.

LOCAL & ADOPTIVE ACTS IN FORCE WITHIN THE BOROUGH.

Local Acts.

Barnstaple Market Act, 1852. Provisional Order 1907. Partially repealing and altering above.

Adoptive Acts.

Public Health Amendments Act, 1890, Parts 2, 3, 4 and 5. The whole of Public Health Amendment Act, 1907, except Sections 48, 51, 68, 78, 82. 84, 85, 91. 92, 93, and 94.

CHEMICAL & BACTERIOLOGICAL WORK.

The County Medical Officer still makes all bacteriological examinations necessary for any practitioner, and this assistance to the Sanitary Authority is very greatly appreciated.

(D). PREVALENCE OF AND CONTROL OVER ACUTE INFECTIOUS DISEASES.

The number of cases of notifiable disease during the year is 256. This is a serious increase on last year with 162. But this increase is not so remarkable if 21 cases of tuberculosis other than lung notified this year for the first time are deducted: and, further, it must be borne in mind that at the end of last year the Borough had just commenced an epidemic of scarlet fever, from which disease the district had been, comparatively speaking, free for three years.

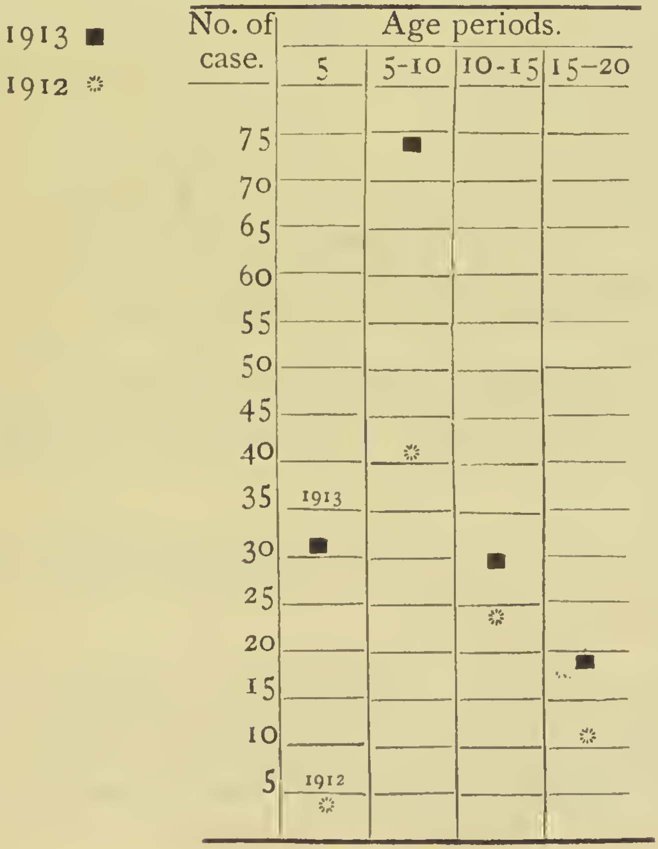
Disease.	1907	1908	1909	1910	1911	1912	1913
Small-pox	......	......	......	......	......	......	......
Cholera	......	......	......	......	......	......	......
Diphtheria	16	2	22	13	9	29	29
Erysipelas	9	11	9	8	4	8	6
Scarlet Fever	101	54	7	3	6	83	156
Typhus Fever	......	......	......	......	......	......	......
Enteric Fever	13	4	6	6	49	4	6
Relapsing Fever	......	......	......	......	......	......	......
Continued Fever... ...	......	......	......	......	......	......	......
Puerperal Fever	......	......	1	......	......	......	......
Acute Poliomyelitis ...	......	......	......	......	1	......	1
Cerebro-spinal Meningitis	......	......	......	......	......	......	...
Pulmonary Tuberculosis	......	......	......	......	......	38	37
Other forms of ,,	......	......	......	......	......	......	21

Scarlet Fever.

There has been a very extensive epidemic of this disease during the year—156 cases having been notified. The type of disease has been mild throughout, and only one case has died. At the same time, several more severe attacks have been witnessed at the end of the year, and it is quite possible when the 1914 report comes to be written it will be found that the mortality rate is much higher.

Taking 1912 and 1913 together, we have had 239 cases of scarlet fever and 2 deaths, *i.e.*, 0·7 per cent.

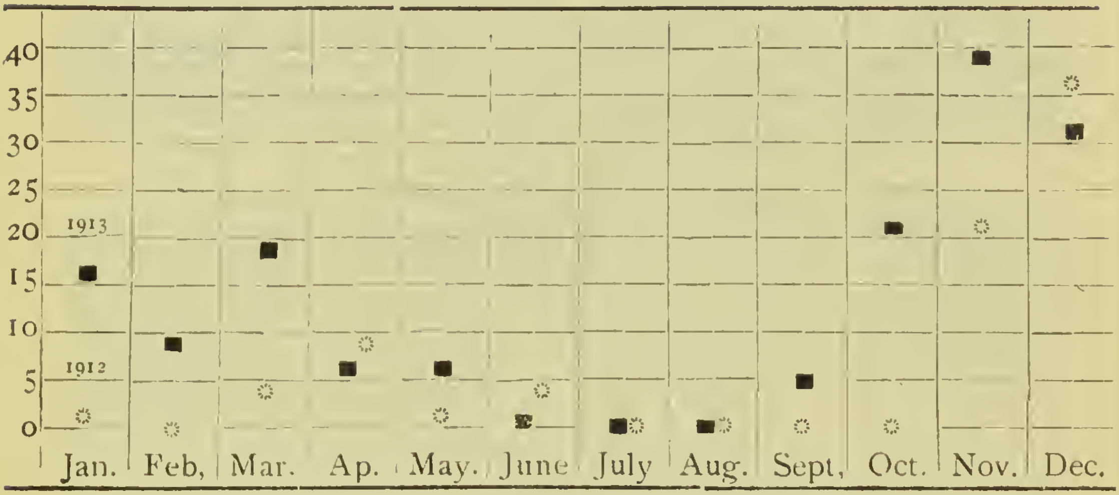
Two charts are appended. The first shows the age incidence of the disease in graphic form, and is interesting as showing the practically identical curves for both years. The vertical numbers stand for number of cases notified, and the horizontal numbers give the various age groups in five year periods



The second chart gives numbers notified each month for both years. The general similarity of the two curves will be seen at a glance.

The vertical numbers are again cases notified ; the horizontal divisions correspond to months. The same signs are used for each year.

If December, 1912, be compared with January, 1913, the effect of the school holiday, prolonged at the request of the Town Council, will be seen.



The epidemic was general throughout the whole town, and no one school was notably worse than another. Thirty-seven different dairies supplied the infected houses, and there was no evidence of milk spreading the disease.

There is no doubt that the spread was encouraged by the type of disease being so mild. But there was a great deal of carelessness on the part of many parents.

When the next epidemic of scarlet fever comes, the mothers in Barnstaple must not expect to have the luck of so mild a type again, and they must be more careful of their children running about and infecting others. If they are not, some of them will be mourning their carelessness for the rest of their lives.

ENTERIC FEVER.

Six cases have been notified of this disease during the year. There has been no death.

One has been nursed in the Isolation Hospital. The remaining five cases were successfully nursed at home.

One of these cases, a child of two, was unrecognised till the father had contracted the disease. Otherwise there was no evidence of personal infection.

The ages of the cases present two striking anomalies. While 4 cases occurred between the age of 20 and 30, one was in a child of 2, and another in a woman of 64.

One case occurred in February, one each in August, September, and October, two in November.

Case 1, a girl in bed with rheumatic fever for three weeks, had normal temperature for a few days, then a staircase rise, and the doctor obtained a positive Widal twelve days after. This girl was in bed with fluctuating temperatures due to irregular relapses until November, and was not pronounced free of infection till December. That is to say nearly twelve months elapsed before she was free from the disease. The source of infection is a complete mystery. She was in bed during January, second week, which would be her probable date of infection, and she was on a milk diet. The milk supply was investigated. All milk came from two farms four and five miles away, where there is no history of enteric fever. No other case has arisen where the same milk is used. A second Widal was taken during the summer, and was again found positive.

Case 2, a woman at 64, again another case who had been ill this time six or eight weeks before notification, and was in bed for 4 weeks before notification. It was a very atypical case.

Case 3 and 4, both in the same house. Father first notified then a positive Widal was obtained on a child aged 2 who had just convalesced from a vague and ill-defined illness. Doubtless this was case of personal infection.

Case 3, notified in November. A lodger in a house where there were children, the patient was removed to Isolation Hospital. This man had eaten mussels taken from the Torridge, near Bideford, on a date exactly corresponding with the probable date of infection, and it is quite probable he contracted the disease from this source.

Case 6, this was a man living with his wife alone, and in a good size house, and he was successfully treated at home.

ACUTE POLIOMYELITIS.

One case of this disease was notified on the 12th February. The child aged 13 had been ill a week, sickness, pain in head, not kept to bed for the first 5 days so that onset was very gradual. On the fifth day she began to complain of pain in the leg. No nasal catarrh no hyperæsthesia, reflexes brisk, all symptoms particularly limb pains increased for 2 days. until on the 12th of February, she had pain in the neck, slight retraction, legs could hardly be moved, reflexes obtained slightly and with much difficulty, considerable spasm of left sterno-mastoid muscle, respirations shallow and diaphragm moving badly.

Patient was successfully nursed at home and completely recovered. The other children were sent away and kept under daily observation.

DIPHTHERIA.

There have been 29 notifications of this disease with 1 death. The majority of these cases have not been severe. Antitoxin has been supplied by the Sanitary Authority. No one school has been more seriously affected than another. 20 different dairies have supplied the milk. Personal infection has been the most potent cause of spread.

The age incidence of the disease was as follows:—

Under 5 yrs.	10	15	20	25	30	
10.	5	5	3	5	1	and 1 case 33, 44 & 69 respectively.

SMALL POX.

No case of this disease has been notified.

The number of unvaccinated children still steadily increases; so that should a case arise here there will undoubtedly be a highly susceptible population open to its ravages.

PUERPERAL FEVER & CEREBRO SPINAL MENINGITIS.

No cases notified.

NON-NOTIFIABLE DISEASES.

MEASLES.

Very few cases have occurred of this disease or of whooping cough. A few of the latter have arisen at the end of the year.

ANTHRAX, GLANDERS, & TETANUS.

No case.

DIARRHŒA & ENTERITIS.

Seven deaths have occurred from this cause. Cases were fairly common in the late summer and early autumn of the year.

School intimations of disease are received and the schools visited when necessary ; they are of very great help to the Medical Officer of Health.

DEATHS FROM ZYMOTIC DISEASES.

The following table gives the deaths occurring from the seven principal Zymotic diseases during the last seven years :—

Zymotic Diseases.	1907	1908	1909	1910	1911	1912	1913
Diarrhœa	3	2	1	1	7	1	7
Diphtheria	1	......	1	......	......	3	1
Measles	......	2	......	1	8	1	......
Scarlet Fever	......	2	......	......	......	1	1
Typhoid Fever	......	2	......	......	9	......	......
Whooping Cough ...	15	......	......	8	......	1	......
Total for each year ...	19	8	2	10	24	7	9

(E) PREVALENCE OF AND CONTROL OVER TUBERCULOSIS.

During the year 34 cases of pulmonary tuberculosis have been notified, and 21 other forms of tuberculosis.

At the beginning of the year the Medical Officer of Health visited all cases notified and made all enquiries necessary as to history and probable source of infection. Instructions were given as to prevention of infection to others, and the proper methods of dealing with expectoration when present. Contacts were examined where possible, and the patients visited occasionally to see that the instructions were carried out.

It was then found that the tuberculosis officer appointed by the County Council was travelling over the same ground. The two officers consulted together, and decided that such over-lapping was a needless inconvenience to the patients and their friends, and that it might help to make notification of the disease unpopular.

The Tuberculosis Officer finally volunteed to keep your Medical Officer informed of anything that concerned the Sanitary Authority, and since then he has made all the visits necessary after notification, and has referred matters requiring executive action to the Medical Officer of Health for him to report to the Town Council.

Houses which have been occupied by phthisical patients who have left or died are thoroughly disinfected and cleansed. In one house where a phthisical patient had left unknown to anyone until the Tuberculosis Officer had called and found a new occupier in possession, it was found by your Medical Officer that in spite of thorough cleansing on going in, the visits of the two officials had induced two more thorough scrubbings, and it was felt that further disinfection was unnecessary.

The Borough of Barnstaple not being a County Borough, has not provided any sanatorium or dispensary for the treatment of tubercle. The County have, however, provided a dispensary within the Borough, which will shortly be opened for the treatment of patients.

At the present time there is still much difficulty in getting sanatorium treatment for insured persons.

Considering they have been entitled to such benefit for over a year, it is to be hoped that proper provision will shortly be made.

(F.) INVESTIGATIONS OF OTHER DISEASES.

CANCER.

There have been 24 deaths from Cancer, 17 of which were over 45 years of age, the largest number since 1907.

Year	1908	1909	1910	1911	1912	1913
Deaths	19	16	19	20	17	24

PNEUMONIA.

Not extensively prevalent. 7 deaths from Pneumonia, 4 from Bronchitis, *i e.* 11 against 32 for the Respiratory diseases last year.

RHEUMATIC FEVER.

No deaths.

INFLUENZA.

4 deaths against 8 last year. It may again be noticed that Influenza put in an earlier appearance than usual.

Syphilis and Gonorrhœa are not prevalent in the Borough.

(G). INFANT MORTALITY.

23 Infants under 12 month have died this year, this is out of 246 births. Last year 23 died out of 296. The death rate is thus 93·49. Last year's was 77·70. The rate for the 145 smaller towns in England and Wales is 112·0, so that the Barnstaple infant mortality is still keeping low. It will be seen however that what raises the rate from last year is the very serious decrease in the birth rate.

Attention is again drawn to the difference between the death rates in legitimate and illegitimate children.

Legitimate chlldren.		Illegitimate children.	
Births ...	227·	Births ...	19·
Deaths ...	20·	Deaths ...	3·
Death rate ...	88·1	Death rate ...	160·5 per 1,000.

The contrast is not so extreme as last year, but it is even now nearly 2 to 1.

The worst district in the Borough this year has been Pilton and Yeo Vale, and the next Derby in which is included all on the south side of the Yeo to Boutport street and including Bear street.

Ophthalmia Neotorum becomes notifiable on April 1st, 1914.

Inspection of Midwives has been put under a special Inspector and it now has nothing to do with the Barnstaple Sanitary Authority.

(H) VITAL STATISTICS.

BIRTHS.

246 births were registered, giving a birth rate of 16 90.

The birth rate for England and Wales (145 smaller towns) is 23·95

This is far the lowest birth rate the Borough has ever experienced.

Comparison table for the last 6 years :

Year.	Number of Births.	Barnstaple Birth Rate per 1000 Living.	England & Wales Birth Rate per 1000 Living.
1908	345	23.92	25·6
1909	312	21·57	26·5
1910	278	19·16	24·8
1911	300	20·79	24·4
1912	296	20·40	22·6
1913	246	16·90	23·95

Rates for the quinquennium—1901 to 1905 ... 22·19
1906 to 1910 ... 20·97

DEATHS.

The total number of deaths registered was 205. Of these 17 were non-residents occurring in the Borough, and 16 occurred elsewhere and are transferred to this district. 204 is thus the number of nett deaths for Barnstaple. The death rate is 14·01.

A comparative table is appended for the last six years

Years.	Nett Deaths at all ages belonging to the district.	Barnstaple Death Rate per 1000.	Death Rate of England & Wales (145 smaller towns) per 1000 living.
1908	191	13·24	14·7
1909	187	12·01	14·5
1910	216	14·89	13·4
1911	234	16·15	14·6
1912	227	15·64	12·1
1913	204	14·0	13·4

Longevity Table Deaths over 65.

Age period.			No. of deaths.
65—70	...	...	16
70—75	...	...	26
75—80	...	...	18
80—85	...	...	17
85—90	...	...	4
90—95	...	...	3
			84

DEATHS IN PUBLIC INSTITUTIONS.

	Residents.	Non-Residents.
North Devon Infirmary..................	14	7
Barnstaple Workhouse	13	17

HERBERT C. JONAS, M.D., B.S.,

M.O.H.

TABLE I.

Table showing Vital Statistics of the whole District during 1913 and Previous Years.

Year.	Population estimated to middle of each year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District			
		Un-corrected Number.	Nett.						Under 1 year.		At all Ages.	
			No.	Rate.	No.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District	No.	Rate per 1000 Nett Births	No.	Rate
1908	14418	345	345	23·92	211	14·63	20	...	30	86·95	191	13·24
1909	14462	312	312	21·57	224	15·35	37	...	22	70·51	187	12·92
1910	14506	278	278	19·16	234	16·13	18	...	33	118·70	216	14·89
1911	14484	300	300	20·70	253	17·46	28	9	32	106·66	234	16·15
1912	14508	296	296	20·40	259	17·85	36	4	23	77·70	227	15·64
1913	14552	246	246	16·90	205	14·21	17	16	23	93·49	204	14·0

Total population at all ages at last Census 14484

Number of Inhabited Houses ,, ... 3539

Average number of persons per house ,, ... 4·09

Area of District in Acres (exclusive of area covered by water) 2359

TABLE II.

Cases of Infectious Diseases notified during the year 1913.

Notifiable Diseases.	Cases notified in whole district.							
	At all Ages	Under 1 year	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and above
Small-pox ...	...	...	...	...	...	...	...	...
Cholera	...	...	...	..	...	...	...	...
Diphtheria (including Membranous croup) ...	29	...	7	11	6	4	...	1
Erysipelas ...	6	...	...	...	1	2	1	2
Scarlet Fever ...	156	2	30	104	11	9	...	..
Typhus Fever ...	...	...	...	...	...	..	...	...
Enteric Fever ...	6	...	1	..	2	2	...	1
Relapsing Fever ...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...
Puerperal Fever ...	...	...	...	..	...	...	...	...
Cerebro-spinal Meningitis ...	...	...	...	...	...	...	...	...
Poliomyelitis ...	1	...	...	1	...	...	...	...
Pulmonary Tuberculosis	37	...	...	2	9	19	6	1
Other forms of Tuberculosis ...	21	..	...	...	8	7	6	...
Totals ...	256	2	38	118	37	43	13	5

TABLE III.

Table showing the Causes of, and Ages at, Death during the Year 1913.

Causes of Death.	Death in or belonging to whole District at subjoined ages.									Total Deaths whether of 'Residents or 'Non-Residents, in Public Institutions in the District.
	All Ages.	Under 1 year.	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	
Enteric Fever	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	1	...	...	...	1	...	...	...	...	...
Whooping Cough	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup	1	...	...	...	1	...	. .	...	...	...
Influenza	4	...	...	...	...	...	1	1	2	...
Erysipelas	...	...	...	...	...	...	...	...	...	...
Phthisis, (Pulmonary Tuberculosis)	19	...	...	...	1	3	8	5	2	...
Tuberculous Meningtis ...	...	...	...	..	...	...	...	...	...	..
Other Tuberculous Diseases ...	6	...	...	...	...	2	...	3	1	...
Cancer, Malignant Disease ...	24	...	...	...	...	1	6	7	10	...
Rheumatic Fever	...	...	...	...	...	...	...	...	...	...
Meningitis	2	1	...	...	1	...	...	...	...	...
Organic Heart Disease ...	14	1	...	...	...	...	1	4	8	...
Bronchitis	4	..	...	...	...	...	...	2	2	...
Pneumonia	7	1	1	...	...	...	1	3	1	...
Other Diseases of Respiratory Organs	...	...	...	...	...	...	...	...	...	...
Diarrhœa...	7	6	1	...	...	...	...	...	...	...
Appendicitus and Typhlitis ..	1	...	...	...	...	...	1	...	...	...
Cirrhosis of Liver	2	...	...	..	...	...	...	1	1	...
Alcoholism	...	...	...	...	...	...	...	...	...	...
Nephritis and Bright's Disease ...	11	...	...	...	...	...	...	7	4	...
Puerperal Fever	...	...	...	...	...	..	...	..	...	...
Other Accidents & Diseases of Pregnancy and Parturition ...	1	...	...	...	...	...	1	..	...	...
Congenital Debility, including Premature Birth	3	3	...	...	...	...	...	...	...	...
Violent Deaths excluding Suicide ...	2	...	...	...	1	...	..	1	...	...
Suicides	3	..	...	...	...	...	1	2	...	...
Other Defined Diseases ...	89	11	1	2	1	4	2	15	53	...
Diseases ill-defined or unknown ...	...	...	...	...	...	...	...	...	..	...
All Causes ...	204	23	3	2	6	10	22	54	84	...

TABLE IV.

Table showing Infantile Mortality during the year 1913. Deaths from stated causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 week.	1–2 weeks.	2–3 weeks.	3–4 weeks.	Total under 1 month.	1–3 months.	3–6 months.	6–9 months.	9–12 months.	Total Deaths under One Year.
All Causes { Certified	...	...	...	...	...	...	...	...	...	...
All Causes { Uncertified	...	...	...	...	...	...	...	...	...	...
Small-pox	...	...	...	...	...	...	...	...	...	...
Chicken-pox ...	...	..	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...
Diphtheria : Croup...	...	...	...	..	...	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	...	...	...	...	...
Diphtheria & Croup	...	...	...	...	...	...	...	...	...	...
Erysipelas	...	...	...	...	...	...	...	...	..	...
Tuberculous Meningitis ...	...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis ..	..	...	..	...	...	...	..	..	...	...
Other Tuberculous Diseases ...	...	...	...	...	...	...	...	..	1	1
Meningitis ... ... (*not Tuberculous*)	...	...	...	...	...	...	...	...	...	...
Convulsions	...	...	...	...	...	...	...	1	...	1
Laryngitis	...	...	...	...	...	...	...	...	...	...
Bronchitis	...	...	...	...	...	...	...	...	...	...
Pneumonia	...	...	...	...	...	...	...	1	...	1
Diarrhœa	...	...	...	1	1	1	...	1	...	3
Enteritis	...	...	...	...	...	2	1	...	...	3
Gastritis	...	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	...	...	...	...
Rickets	...	...	...	...	...	...	...	...	1	1
Suffocation, overlaying	...	...	...	...	..	...	...	...	...	...
Injury at Birth ...	...	...	...	...	...	...	...	...	...	...
Atelectasis ...	1	...	...	...	1	...	...	...	...	1
Congenital Malformations ...	...	...	...	...	...	...	...	...	...	...
Premature Birth ...	2	1	...	...	3	...	...	...	...	3
Atrophy, Debility. Marasmus ...	...	...	...	...	...	2	...	...	...	2
Other causes	1	1	...	1	3	2	1	1	...	7
Totals ...	4	2	...	2	8	7	2	4	2	23

Births in the year, legitimate	227
,, ,, illegitimate	19
Deaths in the year of legitimate infants ...	20
,, ,, illegitimate infants ...	3

TABLE V.

Report of Factories, Workshops, Laundries, Work-places, and Home-work.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspector of Nuisances.

Premises.	Number of Inspections.	Number of Written Notices.	Number of Prosecutions.
Factories (Including Factory Laundries)	Nil	Ni	Nil.
Workshops (Including Workshop Laundries)	102	Nil	Nil.
Workplaces (Other than Outworker's premises included in part 3 of this Report)	18	Nil.	Nil.
Total	120		0

2.—DEFECTS FOUND.

Particulars.	Number of Defects. Found.	Number of Defects. Remedied.	Number of Defects. Referred to H. M. Inspector	Numbei of Prosecutions.
Nuisances under the Public Health Acts :—				
Want of Cleanliness	6	6	...	...
Want of Ventilation	2	2	...	...
Overcrowding	..	...	...	...
Want of Drainage of Floors	...	...	...	...
Other nuisances	2	2	...	...
Sanitary Accommodation — **insufficient**	1	1	...	...
Sanitary Accommodation — **unsuitable or defective**	4	4	...	...
Sanitary Accommodation — **not separate for sexes**	1	1	...	...
Offences under the Factory and Worksh op Act :—				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	2	1	...	...
Other offences (Excluding offences relating to outwork which are included in Part 3 of this Report).	...	...	...	...
Total	18	17	...	...

3.—HOME WORK.

Nature of Work.	Outworkers' Lists, Section 107.									Outwork in Unwholesome Premises, Section 108.	Outwork in Infected Premises, Sections 109, 110.
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists.	Prosecutions.			
	Twice in the year.			Once in the year.				Failing to keep or permit inspection of lists.	Failing to send lists.		
	Lists.	Outworkers.		Lists.	Outworkers.					Instances.	Instances.
		Contractors.	Workmen.		Contractors.	Workmen.					
Wearing Apparel—Making, &c. ...	6	0	23	1	0	1	19				1
Furniture and Upholstery......											

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	No.
Dressmakers and Milliners	32
Tailors	20
Carpenters, Joiners, Cabinet Makers, &c.	23
Plumbing and Smithy	14
Various other Trades...	20
Bakehouses	20
Total number of Workshops on Register	129

5.—OTHER MATTERS.

Class.		No.
Matters notified to H.M. Inspector of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (s. 133)...		...
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5).	Notified by H.M. Inspector ...	1
	Reports (of action taken) sent to H.M. Inspector...	...
Other		2
Underground Bakehouses (s. 101)	No underground Bakehouses	
		3

TABLE VI.

Table showing the Rainfall for each month of the year, together with the true mean Temperature for each month of the year, as recorded at the Athenæum, Barnstaple, by THOMAS WAINWRIGHT, ESQ.

In Latitude, 50° 5" 15' N.
In Longitude, 4° 3" 24' W.
Height above the sea, 25 feet.
Height above the ground, 8 inches.

	Rainfall in inches.	Number of days on which ·01 inches or more rain fell.	Maximum Temperature.	Minimum Temperature.	Mean Temperature.
January.........	6·33	26	53°	28°	43·06°
February	1·23	11	57°	28°	43°
March	4·18	26	55°	30°	43·61°
April	4·17	22	68°	34°	47·63°
May	3·00	19	75°	39°	53·51°
June	2·52	17	80°	41°	56·90°
July	0·77	13	79°	45°	60°
August	1·08	8	80°	41°	61·16°
September ...	2.35	16	74°	41°	58·01°
October	3·48	18	67°	31°	53·61°
November	5·56	26	60°	29°	48·38°
December	3·59	18	55°	24°	43·82°
The Year	38·56	220	80°	24°	51·07°

Bright Sunshine : Ilfracombe, 1433·5 hours. Woolacombe, 1412·4 hours.

The weather in North Devon during the year 1913, finer than that of its predecessor, but much less fine than that of 1911. of bright and sunny memory, may be described as normal in the aggregate, but with the rain and the temperature abnormally distributed over the months.

RAIN.—The amount measured exceeds that of the preceding 50 years by half an inch, the number of wet days was 220, the annual average for the same period being 188. The amount was in excess of the average by 3½ inches in January, 2 in March, 2¼ in April, 2 in November, and smaller amounts in May and June, and the months of February being deficient by 1½ inches. July by 2, August by 2¼, October by 1, September and December by smaller amounts.

TEMPERATURE.—The temperature for the year, nearly normal, but while January, February, and March, in the early part of the year, as well as September, October, November and December, were above, June and July were below the average.

SUNSHINE.—The number of hours of bright sunshine at Woolacombe was 1412·4. the average there for the preceding 9 years being 1691·1 with 1918·5 in the year 1911, and 1336·5 in 1912. The numbers at Ilfracombe during the three previous years were nearly the same.

THOS. WAINWRIGHT.